Notice of Allowability	Application No.	Applicant(s)	
	10/766,556	BOBIER ET AL.	
	Examiner	Art Unit	
	Tesfaldet Bocure	2631	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *10/04/05*.

2. ☒ The allowed claim(s) is/are *1,2,4-16, renumbered as 1-15*.

3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
   a) ☐ All b) ☐ Some* c) ☐ None of the:
      1. ☐ Certified copies of the priority documents have been received.
      2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
      3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

   * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
   (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
   (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____ .
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☒ Other *Approved Drowings*.

TESFALDET BOCURE
PRIMARY EXAMINER

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Dennis Cook (Reg.# 30,826) on December 12, 2005

In the claim

Claim 1, lines 3-5, "said wavelets being defined by 360 degree cycle between crossover positions of said carrier waveform;

said crossover positions representing substantially zero energy level;]" has been deleted.

Remarks:

2. The above Examiner's Amendment was made to cancel the limitations above which are cancelled in the amendment received on June 7, 2005.

REASONS FOR ALLOWANCE

3. The following is an examiner's statement of reasons for allowance: The claimed subject matter in claims 1,2 and 4-16 is allowable because the arts of records fail to teach or fairly suggest the claimed:

"A compression method for modulation systems using integer cycle or impulse modulation on a carrier comprising the steps of: grouping wavelets of the carrier into wavelet groups containing two or more wavelets; receiving an information stream as a binary data sequence of first and second binary states; grouping said binary data sequence of first and second binary states into binary groups of two or more first and second binary states; correlating one of each said wavelets in said wavelet groups with one of each possible binary values of each said binary groups; and *modulating said carrier in accordance with said binary data sequence by altering the amplitude, frequency, or phase of one of said wavelets in said wavelet* groups (see the alerted third frequency in figures 4,4a and 4b) *corresponding to one of each said binary values of said binary groups resulting in a compressed binary modulated carrier* as in claim 1;"

"A method for decompressing compressed binary information that was derived from a binary information stream composed of a binary data sequence of first and second binary states that was integer cycle or impulse-modulated onto a carrier in which the carrier has been modulated in accordance with said binary data sequence by grouping said wavelets into wavelet groups containing two or more wavelets; receiving said information stream as a binary data sequence of first and second binary states; grouping said binary data sequence of first and second binary states into binary groups of two or more first and second binary states; correlating one of each said wavelets in said wavelet group with one of each possible binary values of each said binary group; and *modulating said carrier in accordance with said binary data sequence by altering the amplitude, frequency, or phase of one of said wavelets in said wavelet groups* (see

the alerted third frequency in figures 4,4a and 4b*)* *corresponding to one of each said binary values of said binary groups resulting in a compressed binary modulated carrier* which was broadcasted comprising the steps of: receiving said broadcasted compressed binary modulated carrier; *demodulating and decompressing said compressed binary modulated carrier by detecting the respective amplitude, frequency or phase or phase of said wavelets to identify said altered wavelets in said wavelet groups and correlating to said binary values of said binary groups* (see the alerted third frequency in figures 4,4a and 4b*)* ; and, reconstructing said binary data sequence from said binary values of said binary groups resulting in regeneration of said information stream as in claim 8;" and

"A compression and decompression-method for modulation systems using integer cycle or impulse modulation on a carrier-comprising the steps of: grouping wavelets of the carrier into wavelet groups containing two or more wavelets; receiving an information steam as a binary data sequence of first and second binary states; grouping said binary data sequence of first and second binary states into binary groups of two or more first and second binary states; correlating one of each said wavelets in said wavelet group with one of each possible binary values of each said binary groups; and, *modulating said carrier in accordance with said binary data sequence by altering the amplitude, frequency or phase of one said wavelets in said wavelet groups corresponding to one of each said binary values of said binary groups resulting in a compressed binary modulated carrier groups;* (see the alerted third frequency in figures 4,4a and 4b*)* broadcasting said compressed binary modulated carrier; receiving said

compressed binary modulated carrier; *demodulating and decompressing said compressed binary modulated carrier by detecting the respective amplitude, frequency, or phase of said wavelets to identify said altered wavelets in said wavelet groups* (see the alerted third frequency in figures 4,4a and 4b) and correlating to said binary values of said binary groups; and reconstructing said binary data sequence from said binary values of said binary groups resulting in regeneration of said information stream as in claim 11."

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US patent number 6,968,014 issued to Bobier discloses a transmission system having means for modulating signal missing cycle carrier.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tesfaldet Bocure whose telephone number is (571) 272-3015. The examiner can normally be reached on Mon-Thur (7:30a-5:00p) & Mon.-Fri (7:30a-5:00p).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammad H. Ghayour can be reached on (571) 272-3021. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tesfaldet Bocure
Primary Examiner
Art Unit 2631

T.Bocure

New Sheet

Figure 4a

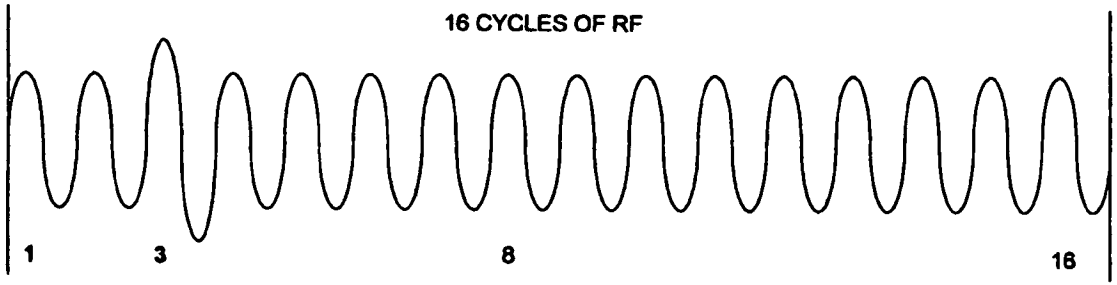
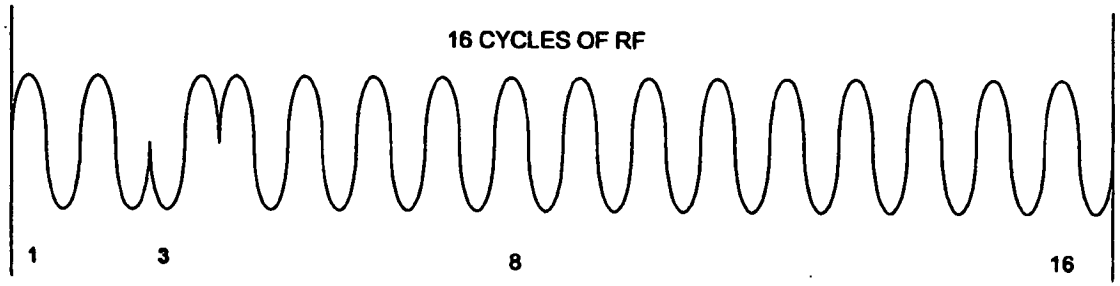


Figure 4b



10/01/21

New Sheet

Figure 7a

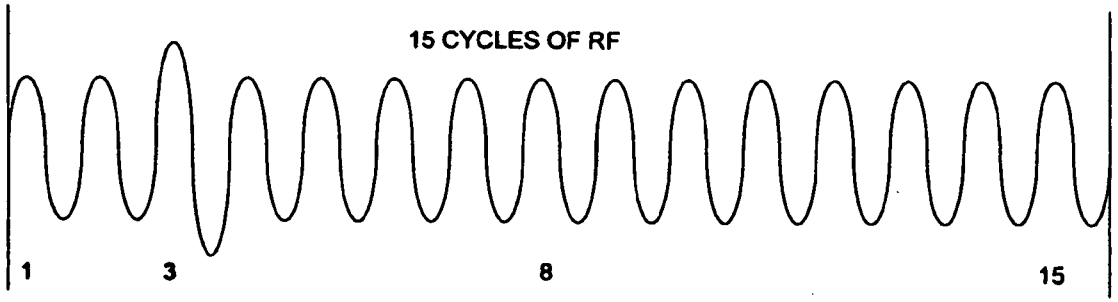


Figure 7b